

REVIEW OF A SERIES OF 135 CONSECUTIVE CASES OF FIBROIDS OF THE UTERUS

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So far as I can gather, no one has reviewed his own cases of fibroids of the uterus prevalent in this country. I hope the present review will be a stimulus to others to review their own cases and give their experience for the benefit of others.

Fibroids are the most frequent uterine tumours. Their exact frequency is not known. The older text books state that they occur in 20 per cent of all women over 30. They are said to be much more common in the Negroes in the United States.

In South India, fibroids of the uterus seem to be much more common in Northern Circars, comprising the districts of Vizagapatnam, Krishna, Godavari, Guntur, and Nellore, than in the southern districts including Madras City. They are comparatively rare in North Assam. In the last 3 years and 4 months 135 cases were admitted under my care. These cases were noticed amongst 2,582 gynaecological cases admitted into the K. G. Hospital, Vizagapatnam, giving a percentage of 5.3. In the old text books, they are said to comprise approximately 8 per cent of gynaecological cases.

Age. Fibroids may develop at any

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age. Most cases, however, are not diagnosed until the women are about 30 years of age. The incidence is highest between the ages of 30 and 35 years. There were only 13 cases between 25 and 29 years. It is rare below 25, there being only 3 cases below 25 years in this series, giving a percentage of 2.2. The youngest patient in this series was 23 years old. They are less frequent in women above 50 years, only 5 cases falling under this age group. They are uncommon after the onset of menopause. The oldest patient in this series was 60 years. The average age in this series is 37.1 years as compared to Costalow's figure of 42.5 years in 926 patients.

TABLE I
Age Incidence

Age	Cases	Per cent.
Between 20 and 30 years	27	20
Between 31 and 40 years	71	52.6
Between 41 and 50 years	32	23.7
Between 51 and above	5	3.7

Number and Size of Fibroids. It is stated in text books that fibroids are usually multiple, and that not more than 1 to 2 per cent occur as single tumours, but in this series 94 were single and 41 multiple, giving a percentage of 69.6 for the single tumours.

TABLE II
Incidence as to Number of Fibroids

Total number of fibroids	Cases	Percent
From 2 to 5	27	65.8
From 6 to 10	8	19.5
From 11 to 20	6	14.7
	41	100.0

Interstitial Fibroids. Of the interstitial tumours for which complete information is available, 11 cases arose from the posterior, 7 from the anterior, 4 from the lateral walls, and 2 from the fundus of the uterus.

Submucous Fibroids. In this series there were 23 submucous and

TABLE III
Incidence as to Size of Fibroids

Size	Cases	Per cent
Less than 8 weeks of pregnancy	12	8.9
Between 10 to 12 weeks of pregnancy	35	26.0
Between 16 to 20 weeks of pregnancy	40	29.6
Between 24 to 28 weeks of pregnancy	20	14.8
Between 30 to 34 weeks of pregnancy	9	6.7
36 weeks of pregnancy	9	6.7
Size not mentioned	10	
Total	135	

Classification. Anatomically, fibroids may be classified into corporeal, cervical, and intraligamentary. The first is most common. In this series there were 116 corporeal, 9 cervical and 10 intraligamentary fibroids.

Clinically, they are classified according to their position in the uterine wall into interstitial, submucous and subserous tumours. In this series there were 50 interstitial, 50 submucous, 8 subserous, 10 broad ligament and 17 combined tumours.

TABLE IV
Incidence as to Variety of Fibroids

Clinical classification	Cases	Per cent
Interstitial	50	37.0
Submucous	23	17.0
Polypoid	27	20.0
Subserous	8	5.9
Broad ligament	10	7.4
Combined	17	12.7
Total	135	100.0

27 polypoid tumours. All these 23 were single submucous fibroids. In addition to this, 7 were in the combined group. All the polypoid tumours were single except 2 which were combined with interstitial fibroids. One of these was combined with a haematometra associated with torsion of the uterus and amenorrhoea for 2 years. One of them was arising from the fundus of the uterus and had given rise to complete inversion of the uterus. Two had extruded outside the vagina. Three showed haemorrhage and necrosis.

Subserous Fibroids. There were 8 cases of subserous fibroids along with 12 more in the combined group. Out of these, 3 were pediculated, one of which had undergone torsion with adhesions to the broad ligament. Four of these were found arising from the left cornu of the uterus. Three of these were of large size weighing 35 pounds, 30 pounds, and 25 pounds

Note: Submucous and polypoid tumours are classified together.

respectively. All of them had undergone hyaline degeneration and were soft and cystic. One of the tumours had completely detached itself from the uterus and was lying free in the abdominal cavity covered by the great omentum (a parasitic fibroid). Another was found free between the bladder and the anterior vaginal wall without any obvious connection with the uterus.

Intraligamentary Fibroids. This form of tumour usually develops in the external layers of the uterine muscle and grows outwards into the cellular part of the broad ligament. If the fibroid had developed in a portion of the uterus that was covered with peritoneum, the tumour would have been termed subserous.

In this series there were 10 cases. All of them were unilateral except one which had extended into both the broad ligaments. Seven extended into the right, 2 into the left and one into both broad ligaments. Two cases had pedicles. In 3 cases, the uterus was found to be normal in size and perched on the top of the tumour. One of these was diagnosed previous to the operation as an ovarian cyst, the second as a carcinoma of the body of the uterus, and the third had a placenta praevia for which she had undergone a caesarean section.

Cervical Fibroids. These are comparatively rare. In this series there were 9 cervical fibroids giving a percentage of 6.6 as against 3 per cent and 3.5 per cent reported by Bland and Lynch. All were single. Of these 5 were interstitial, 1 submucous and 3, polypoid. In 5 of

these, the body of the uterus was found to be normal in size and perched on top of the fibroid (monkey cap fibroid). In all of them the cervical canal was lengthened, in one case to as much as 8 inches. Two of these tumours were growing below the bladder, displacing it. Both these patients complained of attacks of retention of urine. In one case the ureters were found to be displaced and one of the ureters was cut accidentally during the operation.

Degeneration of Fibroids. Benign degenerations frequently cause no symptoms and are of interest chiefly as pathological findings. They arise as a result of disturbances of the circulation in the tumour. Hyaline degeneration was found in 14 of these cases. This is the first change that results from malnutrition of the tumour.

The tumour was found highly cellular in 5 cases. Malignant or sarcomatous degeneration was found in 4 cases. One of them had a secondary growth in one of the ovaries. The incidence of malignant degeneration was 2.9 per cent. Cullen and Lynch reported an incidence of 2.5 per cent. One case was associated with squamous-cell carcinoma of the cervix and another with carcinoma of the body of the uterus. In two of the cases, the uterus had undergone torsion, in one giving rise to a haematometra and amenorrhoea lasting 2 years, in the other giving rise to amenorrhoea for a year. There was one case of torsion in a subserous fibroid giving rise to adhesions of the fibroid to the back of the broad ligament.

TABLE V

Incidence of Degeneration in the Tumour

Nature of degeneration	Cases
Hyaline degeneration ..	14
Calcereous degeneration ..	1
Oedema ..	9
Cystic degeneration ..	1
Mucoid degeneration ..	1
Myxomatous degeneration	1
Necrosis ..	4
Red degeneration (not associated with pregnancy or puerperium) ..	2
Inflamed fibroid ..	2
Suppuration ..	1
Malignant degeneration ..	4
Total ..	40

Associated Pathology. There were 5 cases associated with endometrial hyperplasia. Nine cases were associated with adenomyosis. The ovaries were found cystic in 67 cases including 4 cases with lutein cysts. The other lesions found in the ovaries were, a fimbrial cyst, a simple serous cyst which had undergone torsion, a fibroma of the ovary, a fibroid of the ovary, and 2 ovarian abscesses. The bladder was found pulled up in 3 cases. The ureter was found displaced in 4 cases. In none of the cases was a hydroureter noticed.

The tumours were found adherent to bowels in 12 cases, to great omentum in 7 cases, to the appendix in 1 case, to the parietal peritoneum in 2 cases and to the broad ligament in 1 case.

The tumours were found burrowing into the mesosigmoid in 2 cases and lifting up the caecum in one case.

TABLE VI

Incidence of Associated Lesions

Lesions	Cases
Cystic ovaries ..	63
Lutein cyst ..	4
Fimbrial cyst ..	1
Simple serous cyst ..	1
Fibroma of the ovary ..	1
Fibroid of the ovary ..	1
Ovarian abscess ..	2
Hydrosalpinx ..	7
Pyosalpinx ..	4
Haematosalpinx ..	1
Salpingitis ..	3
Tubo-ovarian abscess ..	1
Endometrial hyperplasia ..	5
Endometriosis ..	3
Adenomyosis ..	9
Total ..	106

Symptoms. The shortest duration of the complaint was 10 days and the longest was 20 years.

TABLE VII

Incidence as to Duration of Symptoms

Duration of symptoms	Cases	Per cent
Up to 6 months ..	24	17.7
Between 6 months to 2 years ..	55	40.7
Between 2 years and 5 years ..	38	28.1
Between 5 years and 10 years ..	14	10.3
Between 10 years and 20 years ..	4	3.2
Total ..	135	100.0

Fibroids do not always cause symptoms. They may attain a very big size without causing symptoms other than an evident abdominal swelling. 31.1 per cent of the patients in this series had few or vague symptoms. 15.5 per cent had a single complaint and 16 per cent complained of vague symptoms. Three per cent complained only of an evident tumour.

Out of 135 patients in this series only 79 patients complained of bleeding in some form.

TABLE VIII

Incidence as to Type of Menstrual Irregularity

Type of Menstrual Irregularity	Cases
Menorrhagia	34
Menostaxis	2
Metrorrhagia	4
Continuous bleeding	13
Epimenorrhoea	1
Menorrhagia and Menostaxis	11
Menorrhagia and Metrorrhagia	7
Menorrhagia and continuous bleeding	7
Total	79

Amenorrhoea. This was one of the symptoms complained of by 3 patients. In the first case it was due to torsion of the uterus. In the second case it was due to haematometra in a fibroid polypus. In the third case, the only pathology that was found was a large subserous tumour which had undergone extensive hyaline and mucoid degeneration and was highly cellular.

Leucorrhoea. Twenty-two out of 135 patients complained of white discharge.

Pain. Forty-nine patients complained of pain in the lower abdomen and 21 complained of backache giving a percentage of 48. In most of the cases the pain was due to complications such as infections, uterine contractions in attempts to expel submucous tumour, displacement of the pelvic organs, extensive degeneration and endometriosis.

TABLE IX

Incidence as to Causes of Pain

Cause of Pain	Cases
Infection	15
Displacement	11
Degeneration	7
Polypus	13
Endometriosis	3
Total	49

Dysmenorrhoea. Twenty-two patients complained of painful periods. Dysmenorrhoea is not common with interstitial and subserous tumours. It is relatively rare in fibroids.

TABLE X

Incidence as to Cause of Dysmenorrhoea

Cause of Dysmenorrhoea	Cases
Fixed retroverted uterus	7
Submucous fibroid	7
Adenomyosis	3
Multiple fibroids	3
Lutein cysts	2
Total	22

Other Symptoms. Some of the symptoms such as weakness, breathlessness and palpitation due to the coincident anaemia, were complained of by 14 patients. Dyspeptic symptoms were complained of by 4 patients. Difficulty in micturition was complained of by 8 patients. In 5 patients the tumour, pretty big in size, was found arising from the posterior wall and pulling the body of the uterus backwards. There was retention of urine in 4 patients. In 2 of these cases, the retention was due to fibroid polypi, size of a husked coconut, one found inside and the other outside the vagina. In the third patient the fibroid was lying between the bladder and the anterior vaginal wall. In the fourth patient, the retention occurred in a cervical fibroid displacing the cervical canal to one side.

Sterility. This was the chief complaint in 6 patients; one of these complained of dyspareunia also.

Diagnosis. The diagnosis of uterine fibroids usually causes no difficulty. Yet, there were as many as 23 cases where it was difficult. They were mistaken for ovarian cysts 7 times. Three of these were big soft tumours, the size of 36 weeks pregnancy, one of which had undergone extensive hyaline and mucoid degeneration and the second had undergone extensive sarcomatous degeneration, and the third one had a great deal of oedema. One was a hydro-salpinx impacted in the pouch of douglas with the uterus in front and of the size of 8 weeks pregnancy.

The rest were mistaken for a suppurating cyst of the anterior vaginal wall, a retroverted fixed uterus, cancer of the body of the uterus, a pelvic inflammatory mass, a chronic inversion of the uterus, and metropathia haemorrhagica. Pregnancy, uterine or ectopic, was not diagnosed even once in this series.

TABLE XI

Preoperative Diagnosis

Diagnosis	Cases
Fibroids	122
Ovarian cyst	7
Suppurating cyst of anterior vaginal wall	1
Retroverted fixed uterus	1
Carcinoma of the body of the uterus	1
Pelvic inflammatory mass	1
Chronic inversion of the uterus	1
Metropathia haemorrhagica	1
Total	135

Treatment. No case in this series was treated with radium or deep X-rays. The haemoglobin level in all the patients was raised to at least 60 per cent before they were operated. All of them were operated under spinal anaesthesia. In all these cases 1.5 ml. of nupercaine (1 in 200) was used.

TABLE XII
Nature of Operative Treatment

Nature of Operation	Cases	Cured	Died
Panhysterectomy	16	16	—
Panhysterectomy and appendicectomy	4	3	1
Panhysterectomy and single salpingo-oophorectomy	30	29	1
Panhysterectomy and single salpingo-oophorectomy and appendicectomy	4	4	—
Panhysterectomy and double salpingo-oophorectomy	14	13	1
Subtotal hysterectomy	3	3	—
Subtotal hysterectomy and appendicectomy	1	1	—
Subtotal hysterectomy and single salpingo-oophorectomy	12	12	—
Subtotal hysterectomy and single salpingo-oophorectomy and appendicectomy	7	7	—
Subtotal hysterectomy and double salpingo-oophorectomy	1	1	—
Vaginal hysterectomy	10	10	—
Myomectomy abdominal	12	12	—
Myomectomy abdominal and appendicectomy	3	3	—
Myomectomy vaginal	15	15	—
Total	132	129	3

In this series 68 panhysterectomies, 24 subtotal hysterectomies, 10 vaginal hysterectomies, 15 abdominal myomectomies and 15 vaginal myomectomies were done. Three of them died. The first case had a cervical fibroid, the size of 24 weeks pregnancy. She died of suppression of urine and uraemia, 5 days after the operation. The second case had a big haematometra about the size of a football impacted in the pelvic cavity, associated with a fibroid polypus. She died the same day of shock. The third case had multiple fibroids, 13 in number (submucous and interstitial) size of 24 weeks pregnancy. She died 2 days later from cerebral complications due to middle ear diseases for

which conditions she was being treated in the ear, nose and throat department. This gives a mortality rate of 2.2 per cent and a corrected mortality rate of 1.4 per cent.

Total hysterectomy was done with great difficulty in 3 patients. One of them was the case who died of shock. The second case was complicated with a big pyosalpinx that had extended into the infundibulo-pelvic ligament and was adherent to loops of small intestines and pelvic colon. The third case was in an interstitial fibroid that had extended downwards to the vaginal fornix and that had to be enucleated before a total hysterectomy could be done.

Enucleation of the fibroids had to

be done before the uterus could be removed in 5 patients. It had to be done in the first 2 difficult cases cited above. It was done in one case of cervical fibroid, in one case complicated with pyosalpinx and in one case with interstitial fibroid arising from the antero-lateral wall of the uterus.

Five of the patients had previously undergone an abdominal operation in other hospitals for a similar complaint. One of them had been operated 15 years ago, one 9 years ago, one 8 years ago, one 4 years ago and one 1 year ago.

Accidents during the operation. The bladder was torn twice and repaired successfully during the operation. The ureter was accidentally severed in 6 patients. This was recognized during the operation 5 times. End to end anastomosis of the severed ends over a India-rubber catheter introduced into the bladder through the distal end of the cut ureter was done successfully in 2 cases. The catheter was removed after 10 days through the urethra. In one case the severed end was implanted into the bladder unsuccessfully and had to be implanted into the pelvic colon later on. In two patients the ureter was implanted into the pelvic colon during the operation. In one case the affected ureter was ligatured by a general surgeon to whom the patient had gone for advice.

In two patients the bladder was found pulled up about midway between the symphysis pubis and the umbilicus. The ureters were found widely displaced in 3 patients. In one case both the bladder and the

ureters were found displaced.

Vaginal hysterectomy was done in cases complicated with cysto-rectocele, to avoid a second operation. In one patient the uterus of the size of a 16 weeks pregnancy was removed after morcellation of the fibroid polypus.

Abdominal myomectomy was done in 12 patients whose ages ranged from 23 to 38. Six of them were sterile. From each of the two cases, 9 fibroids were removed.

In one of the cases of vaginal myomectomy a fibroid polypus, the size of a husked cocoanut, was found impacted in the vagina. This was removed by morcellation.

In addition to the above operations, posterior colpoplasty was done 10 times, Gilliam's operation twice, ovarian cystectomy once and repair of ventral hernia twice.

Summary.

One hundred and thirty-five consecutive cases of fibroids of the uterus, which came under my care during 3 years 4 months are reviewed. They seem to be more common in the Northern Circars of the Madras State. They are comparatively rare in Assam State. These cases were seen amongst 2562 gynaecological cases admitted into the K. G. Hospital, Vizagapatnam, giving a percentage of 5.3.

The incidence was highest between the ages of 31 and 40. It was very rare below 25. There were only 3 cases below 25. The youngest patient was 23 years and the oldest was 60 years of age. The average age in this series was 37.1 years.

There were 94 single and 48 multiple tumours, giving a percentage of

68 for the single tumour. Only one or two per cent of the fibroids are said in text books to be single. Nine cases of fibroids, size of 36 weeks' pregnancy, were seen.

There were 116 corporeal, 9 cervical and 10 intraligamentary fibroids. According to the clinical classification, there were 50 interstitial, 50 submucous, 17 subserous and 18 combined tumours. Interstitial fibroids were seen to arise most often in the posterior wall of the uterus. In this series there were 23 submucous and 27 polypoid tumours. All the submucous fibroids were single. Polypoid tumours also were single except in 2 cases. One of the polypoid tumours was associated with torsion of the uterus giving rise to haematometra. Another was arising from the fundus of the uterus giving rise to complete inversion of the uterus.

Most of the broad ligament fibroids were unilateral. One of these patients had a placenta praevia for which she had undergone a caesarean section. There were only 9 cervical fibroids giving a percentage of 6.6. All of them were single. Three of them gave rise to attacks of retention of urine.

All varieties of degeneration were seen in fibroids. Hyaline degeneration was most common. Malignant degeneration was seen in 4 cases giving a percentage of 2.9. Cystic ovaries were found in 67 cases. Tubes were involved in 16 cases. Adenomyosis was seen in 9 cases.

The commonest symptom was menorrhagia. 79 patients complained of some form of vaginal bleeding.

Leucorrhoea was complained of by 22 patients. Pain was another symptom in 54 patients. Dysmenorrhoea was complained of by 22 patients. Some form of complication was present in these cases. Other symptoms complained of by these patients are also analysed.

68 panhysterectomies, 24 subtotal hysterectomies, 10 vaginal hysterectomies, 15 abdominal myomectomies and 15 vaginal myomectomies were done with 3 deaths giving a corrected mortality of 1.4 per cent. Vaginal hysterectomy was done in those cases associated with cystocele. Abdominal myomectomy was done in patients whose age ranged from 23 to 38 years. Six of them were sterile. The maximum number of fibroids removed from a single uterus was 9.

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